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Washington State Building Codes Council

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**RE: NWGA Comments Concerning Proposed
Residential Energy Code**

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Members of the Washington State Building Code Council:

The Northwest Gas Association (“NWGA”) submits the following comments on the Washington State Building Code Council’s (“Council”) proposed Residential Energy Code (“Proposed Code”), WSR 22-17-149. NWGA has significant concerns regarding the Proposed Code and urges the Council to amend the codes to increase energy efficiency and greenhouse gas (“GHG”) emission reductions in a technology-neutral manner that is more consistent with Washington state policy.

NWGA represents the two interstate transmission pipelines and four natural gas distribution companies that serve warmth and comfort to 3.5 million residents and productive energy to 110,000 businesses, institutions and industries that employ hundreds of thousands of people in Washington State. Our members own and operate 45,000 miles of safe, reliable energy delivery infrastructure here.

NWGA members acknowledge the climate imperative and the need to act collectively to reduce GHG emissions. We embrace our role in helping the region achieve its decarbonization goals. Indeed, we maintain that the region cannot achieve its ambitious objectives without relying on the gas delivery system. Within the constraints of existing policy and regulations, NWGA members are keenly focused on and investing in energy efficiency, innovation, fuel decarbonization, and replacing carbon-intensive fuels. Furthermore, policies recently passed by the Legislature will accelerate the process of decarbonization and should be allowed to work before piling on detrimental proposals that will increase the costs of housing, appliances, and electricity without significantly reducing GHG emissions.

NWGA is concerned that the Proposed Code appears intent on eliminating natural gas from buildings rather than cost-effectively reducing emissions across the entire energy system, reducing options for builders, owners, and renters.¹ A one-size-fits-all, technology-reductive approach risks excluding affordable and effective technologies that would benefit Washington’s homeowners and residents. Accordingly, the Council should fully consider the negative impacts certain proposals will have on housing affordability, energy equity, and regional reliability.

To address these concerns, NWGA submits the following recommendations:

¹ See, e.g., Chair Anderson, 2021-06-04 TAG Meeting (stating “really the only path to get to fossil-fuel free by 2030 involves electrification”).

Comments

A. The Residential Energy Code Must Preserve Housing And Energy Equity.

The Proposed Codes are out of step with Washington state policy prioritizing housing and energy equity. The Council should avoid modifications to the Washington State Energy Code that do not reflect these legislative priorities, especially in this period of record inflation that is making housing in Washington increasingly unaffordable.²

Regarding **housing equity**, the Legislature has declared that “[a]ffordable housing, inclusive of the costs to power homes, is an essential factor in stabilizing communities.”³ It is also the state’s goal “to coordinate, encourage, and direct, when necessary, the efforts of the public and private sectors of the state and to cooperate and participate, when necessary, in the attainment of a decent home in a healthy, safe environment for every resident of the state.”⁴ Similarly, regarding **energy equity**, it is the policy of the state to: “(1) *preserve affordable energy services* to the residents of the state; (2) *maintain and advance the efficiency and availability of energy services* to the residents of the state of Washington; (3) ensure that customers pay only reasonable charges for energy services; (4) permit flexible pricing of energy services.”⁵

Currently, the Proposed Code undermines these priorities by foreclosing the use of highly efficient gas heating equipment that is important for containing costs for homeowners, developers, and renters. NWGA believes that the Council can change course and carry out its duties consistent with these priorities by adopting a technology-neutral approach to reducing GHG emissions that allows for consumers to choose the most affordable but efficient energy appliances that best meet their individual needs.

B. Accurate Emission Factors Will Give Homeowners And Builders More Flexibility.

The Council should apply a consistent approach to establishing emission factors that reflect legislative requirements to reduce the carbon intensity of the electric and natural gas systems. Doing so would improve the accuracy of the Proposed Code and ensure that homeowners and builders are afforded more options in designing projects—a flexibility that is critical for containing housing costs and avoiding pressure on rental rates.

Washington recently promulgated two pieces of landmark legislation—the Clean Energy Transformation Act⁶ (“CETA”), which applies to the electric sector, and the Climate Commitment Act (“CCA”),⁷ which applies economy-wide, including to the natural gas sector. CETA requires that Washington electric utilities must supply Washington customers with electricity that is 100 percent renewable or non-emitting by 2045. Similarly, the CCA establishes a cap-and-invest program that requires Washington gas utilities to achieve a 45 percent reduction in GHG emissions below 1990 levels by 2030, a 70 percent reduction by 2040, and a 95 percent reduction by 2050. Gas utilities are permitted to draw on a range of

² In Seattle, the Consumer Price Index rose nine percent in just a single year. U.S. Bureau of Labor Statistics, *Consumer Price Index, Seattle area – August 2022*, https://www.bls.gov/regions/west/news-release/consumerpriceindex_seattle.htm (last visited Oct. 8, 2022).

³ RCW 43.185B.005(1)(c).

⁴ RCW 43.185B.007.

⁵ RCW 80.28.074 (emphasis added).

⁶ Senate Bill 5116 (2019).

⁷ Senate Bill 5126 (2021).

compliance methods, including energy efficiency and increased RNG and hydrogen distribution.⁸ To meet the required 2030 reduction, the cap will decline steeply at a rate of 7 percent per year in the first two compliance years of the program.⁹

Currently, the Proposed Code arbitrarily establishes an **electricity** emission factor that **does** reflect legislative carbon reduction mandates and a **natural gas** emission factor that **does not**. Proposal 21-GP2-070 reduces the emission factor for electricity from 0.80 CO₂e lb/kWh to 0.44 CO₂e lb/kWh.¹⁰ The Council selected this emission factor from the result of 1 of 10 scenarios that were modeled by Northwest Renewable Energy Labs that yielded factors ranging from minus 0.20 to plus 1.71, none of which were identified as more likely than others. The Council justified the proposed emission factor based on the future reduction of electricity's carbon intensity mandated by CETA: "Given that electricity emissions rates will now be driven by state law and the timelines specified in CETA, the carbon emissions factors for electricity used in table R405.3 **should be representative of current law.**"¹¹ In contrast, the Proposed Code maintains the previous natural gas emissions factor, which, in light of the CCA, will become outdated before the codes are next updated. To correct the disparate treatment of the two energy systems, the Council should replace the natural gas emission factor of 11.7 lb CO₂e /therm in Table R405.2(2), with an emission factor of 10.53 lb CO₂e/therm.¹² As with the electric system, this change would be "representative current law" and better reflect the gas system's carbon intensity trajectory as utilities comply with the CCA.

In addition to ensuring the codes are internally consistent, updating the proposed natural gas emission factor will provide a more accurate accounting of the carbon footprint of proposed construction and, as a result, increased flexibility for homeowners and builders as they design projects.¹³ This flexibility is critical to make sure the Council does not inadvertently exacerbate Washington's affordable housing crisis during a time when middle- and low-income families are already struggling with the impacts of rising inflation. In 2019, Washington already had a deficit of 140,000 housing units, representing 4.4 percent of the total existing housing stock.¹⁴ Housing crisis trends have only continued to worsen since that time. In 2021, median home prices in 2021 skyrocketed by 23.9 percent from 2020 prices.¹⁵ Limiting the flexibility Washington residents and builders have to affordably construct homes is contrary to the state's equity goals and will cause affordable housing availability to further decline.

⁸ See WAC 173-446-040.

⁹ Department of Ecology, *Concise Explanatory Statement, Chapter 173-446 WAC Climate Commitment Act Program*, 188 (Sept. 2022), <https://apps.ecology.wa.gov/publications/documents/2202046.pdf>.

¹⁰ Washington State Department of Commerce, Proposal 21-GP2-070, 1 (Apr. 8, 2022), https://sbcc.wa.gov/sites/default/files/2022-04/070_WSEC_R_Table_R405_3_Reichart.pdf.

¹¹ *Id.* at 2.

¹² "An agency action is arbitrary or capricious if it is willful and unreasoning and taken without regard to the attending facts or circumstances." *Honeywell v. Washington State Dep't of Ecology*, 2 Wash. App. 2d 601, 611 (2017) (citing *Port of Seattle v. Pollution Control Hr'gs Bd.*, 151 Wash.2d 568, 589 (2004)).

¹³ R405.2 directly conditions performance-based compliance with the Residential Energy Code on ensuring annual carbon emissions are below certain percentages of the standard reference design, which is calculated using the carbon emission factors in Table R.405.2(2).

¹⁴ Up for Growth, *Housing Underproduction in the U.S.*, 5 (2022), available for download at <https://upforgrowth.org/apply-the-vision/housing-underproduction/>.

¹⁵ Washington Office of Financial Management, *Median home price*, <https://ofm.wa.gov/washington-data-research/statewide-data/washington-trends/economic-trends/median-home-price#:~:text=increasing%20by%20over%20%24121%2C000%2C%20a,%2C%20increasing%2023.9%25%20over%202020.> (last visited Oct. 8, 2022).

C. Allowing Heating By Efficient Gas Or Electric Systems Aligns With State Policy, Supports System Reliability, And Benefits Washington Residents.

NWGA supports the inclusion of the option to use either gas or electric heat pumps for space and water heating in R403.13 and R403.5.7.¹⁶ However, the Proposed Code should not foreclose other cost-effective, commercially available heating equipment, such as highly efficient gas furnaces. Affording consumers the option to utilize highly efficient gas heating equipment is consistent with Washington policy, important for preserving system reliability, and beneficial for consumers.

NWGA supports proposal to allow the use of either gas or electric heat pumps for space and water heating for the following reasons:

- *First*, the allowance of gas or electric heat pumps aligns with the diverse decarbonization approach preferred by the Washington legislature. The legislature has sent a clear signal that the path to decarbonization is technology-neutral: the **CCA** establishes a cap-and-invest program that ultimately requires a 95 percent reduction in emissions from the gas system, but does not attempt to dictate *how* gas utilities achieve their decarbonization emission reduction targets,¹⁷ allowing room for a diverse range of compliance methods; the **CETA** establishes a goal for electric utilities to achieve 100 percent clean electricity by 2045, but allows the addition of resources such as natural gas coupled with carbon capture technology, so long as “the resource acquisition is consistent with meeting the utility’s targets under RCW 19.405.040 or the standard in RCW 19.405.050 at the lowest reasonable cost, considering risk”; **Senate Bill 5722** requires building performance standards for existing buildings,¹⁸ but it does not restrict high-efficiency gas or dual fuel heat pumps; and, the **State Building Code Council Act** states that the Washington State Energy Code shall be designed to “[r]equire new buildings to meet a certain level of energy efficiency, but allow flexibility in building design, construction, and heating equipment efficiencies within that framework.”¹⁹ A technology-reductive approach preferring electric heat pumps would disrupt the careful balance struck by the Legislature in establishing these statutes by limiting cost-effective beneficial technologies.
- *Second*, the allowance of both gas and electric heat systems is critical for energy system reliability. Complementary energy systems are needed to maintain grid reliability in the Pacific Northwest. Relying too much on one source of energy threatens grid resiliency. Studies by the Bonneville Power Administration, the Pacific Northwest Utilities Conference Committee, and the Northwest Power and Conservation Council, and consulting firm Energy & Environmental Economics have all confirmed that the Pacific Northwest may soon begin to experience capacity shortages, and that by the mid-2020s, the region may face an energy capacity deficit of thousands of megawatts. According to the Northwest Power Pool, “These developments threaten to upset the balance of loads and resources within the region and, if not properly addressed, could bring an end to a period

¹⁶ R403.13 states, “Space heating shall be provided by a heat pump system.” Likewise, R403.5.7 states, “Service hot water in one- and two-family dwellings and multiple single-family dwellings (townhouses) shall be provided by a heat pump system.”

¹⁷ NWGA is concerned that the seeming focus of the Proposed Code is becoming fossil-fuel free, rather than focusing on the decarbonization of the entire energy system. *See, e.g.*, Chair Anderson, 2021-06-04 TAG Meeting (stating “really the only path to get to fossil-fuel free by 2030 involves electrification”).

¹⁸ This bill was signed by the Governor on March 25, 2022. Washington State Legislature, *SB 5722*, <https://app.leg.wa.gov/billsummary?BillNumber=5722&Year=2021&Initiative=false> (last visited Oct. 9, 2022).

¹⁹ RCW 19.27A.020(2)(b) (emphasis added).

of stability dating back to the end of the Western energy crisis of 2000-2001.”²⁰ Relying on a single source of energy to meet all of Washington’s energy needs will only heighten risks to regional reliability. A technology-neutral approach to decarbonization that includes high-efficiency gas heating and dual fuel heat pumps would help ensure Washington residents continue to have reliable energy even in the coldest months.

- *Third*, the allowance of gas or electric heat gives homeowners, renters, and builders the ability to make the choice that is right for them. Specifically, allowing Washingtonians their choice of heating fuels will allow for construction tailored to the specific building. For example, gas heating may be more suitable in homes in colder climates and in homes with greater demand for hot water, such as in homes where families that may need to take multiple hot showers simultaneously. Further, a prescriptive approach of requiring electric heat pumps would impose an unnecessary financial burden on renters, homeowners, and builders. A recent study prepared by Home Innovation Research Labs found that the upfront additional cost of an electric house with a high efficiency inverter heat pump and 80-gallon heat pump water heater (3.75 UEF) compared to a baseline gas house (minimum efficiency natural gas equipment) ranges from \$8,160 to \$11,803, depending on climate.²¹ These increased costs could make homeownership and housing less accessible for families across the state. A state-wide prescriptive approach that does not consider the unique needs of each construction project therefore would be inappropriate, especially when gas heaters have been shown to be effective, less expensive, and highly efficient.

NWGA notes these same reasons weigh in favor of the Council revisiting its decision to exclude gas heat pumps in the Commercial Energy Code, WSR 22-02-076.²² The lack of a consistent approach between the two codes—particularly for multifamily dwellings—risks imposing additional cost burdens on low-income families living in large apartment buildings that other Washington residents are spared. The change to 21-GP2-084 (“Residential Code Scope”) makes it so that multifamily buildings with dwellings directly accessed from the outdoors are covered by the **residential code**, but other multifamily R-2 buildings are covered by the **commercial code**, and are thus subject to the commercial code’s gas heat pump restrictions. The Council has not offered any compelling justification for this disparate treatment and should, instead, adopt a uniform approach that affords homeowners and developers greater flexibility to manage costs. While the Council has voted on the Commercial Code, the opportunity remains to adopt the Residential Energy Code’s more sensible, if still overly prescriptive, approach.

D. The R406 Tables Should Allow Builders To Select Efficient Natural Gas Systems.

The changes to the tables in R406 will make it significantly more difficult for builders to select efficient natural gas systems and will effectively deny many residents who want these systems in their homes access to them.

While the tables nominally allow efficient gas systems, the reality is that the proposed credit values put these systems out of reach for most homeowners and builders. For example, Table R406.2 Option 2

²⁰ Northwest Power Pool, *Exploring a Resource Adequacy Program for the Pacific Northwest: Executive Summary*, 1(2019), https://thelens.news/app/uploads/2021/06/2019.09.30_E3_NWPP_RA_ExecSum.pdf.

²¹ Home Innovation Research Labs, *Cost and Other Implications of Electrification Policies on Residential Construction* (February 2021), <https://www.nahb.org/-/media/NAHB/nahb-community/docs/committees/construction-codes-and-standards-committee/home-innovation-electrification-report-2021.pdf>.

²² As adopted, the Commercial Energy Code places prescriptive prohibitions on any kind of gas heat pump or water heater in certain commercial buildings, to the detriment of Washington businesses and the State’s energy system. See C403.1.4; C404.2.1.

would assign gas equipment that meets federal efficiency standards a negative 3.0 credit value. This is a meaningful bar on the utilization of gas appliances in the context of R406.3, Option 2's requirement for dwelling units to obtain anywhere between 2.5 to 6.0 credits, depending upon the dwelling unit type, and the limited options under Table R406.3, Option 2, to make up for this extreme loss of credits. Homes with gas appliances have already become more difficult to access. A 2022 study commissioned by the Northwest Energy Efficiency Alliance indicates that the current table in force is already driving builders away from gas—only 12 percent of new homes include natural gas, based on the existing 2018 code²³—and the proposed credit values are far more restrictive.

The Council should conduct a full economic analysis of the Tables before making a final decision to adopt either table, because restricting consumer energy choice will drive up housing costs, as well as costs for electric appliances and electricity due to increased demand. For example, if the Option 1 Tables are selected, this could increase costs by up to \$5,245 per dwelling.²⁴ While the Council estimates that the Option 2 Tables will decrease costs from the 2018 code for most dwellings based on the reduced number of additional efficiency credits required,²⁵ the Council has not provided adequate support for this finding.

Finally, because the Option 2 tables would impose more than minor costs on businesses in an industry if adopted, the Council is required by statute to prepare a small business economic impact statement that details the costs of the Option 2 tables.²⁶ The agency must consider, without limitation, any mitigation techniques including those suggested by small businesses or small business advocates.²⁷ Failure to complete this analysis prior to finalizing the Proposed Code would violate Washington's Regulatory Fairness Act.

E. Statutory Requirements Mandate Further Cost-Benefit Analyses.

NWGA urges the Council and the Department of Enterprise Services to contract with an independent, third-party entity to perform an economic analysis of the Proposed Code, as required by RCW 19.27.074(3)(b). Relatedly, RCW 34.05.328 requires that a final cost-benefit analysis be made available when the rule is adopted. This final cost-benefit analysis will be necessary in order for the Council to "[d]etermine that the probable benefits of the rule are greater than its probable costs."²⁸ Having this information will maintain the statutorily mandated public transparency regarding the potential benefits and costs of the Proposed Code.

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²³ Northwest Energy Efficiency Alliance, *Washington Residential Post-Code Market Research Report*, 12 (May 26, 2022), <https://neea.org/img/documents/Washington-Residential-Post-Code-Adoption-Market-Research.pdf>.

²⁴ State Building Codes Council, CR-102, 9 (Aug. 23, 2022), https://Council.wa.gov/sites/default/files/2022-08/WSR_OTS%20Combined_WAC%2051-11R_WSEC-R.pdf.

²⁵ *Id.*

²⁶ RCW 19.85.030(1)(a); *Seeds, Inc. v. State*, 98 Wash. App. 1022 (1999) ("Recognizing that administrative regulations could have a disproportionate impact on small businesses, the Washington Legislature adopted the [Regulatory Fairness Act].")

²⁷ RCW 19.85.030(2)(f).

²⁸ RCW 34.05.328(1)(d).

Thank you for the opportunity to comment on the Proposed Code. NWGA hopes that the Council will consider the benefits of Washington's technology-neutral decarbonization approach and adequately account for equity and cost concerns, the CCA-mandated GHG emissions reductions in the gas sector, and analytical transparency in revising building code requirements for residential buildings.

Sincerely,

A handwritten signature in blue ink, reading "Dan Kirchner". The signature is fluid and cursive, with a long horizontal stroke at the end.

Dan S. Kirchner
Executive Director